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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/772,930 | 02/04/2004 | Cheng-Jung Chen | 04115-URS | 6073 |

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LIN & ASSOCIATES INTELLECTUAL PROPERTY
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EXAMINER

KOVALICK, VINCENT E

ART UNIT PAPER NUMBER

2629

DATE MAILED: 11/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

| | | |
|--|------------------------------------|--|
| Application No. 10/772,930 | Applicant(s) CHEN ET AL. | |
| Examiner Vincent E. Kovalick | Art Unit 2629 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 04 February 2004.
- 2a) This action is **FINAL**.
- 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-16 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,9 and 14 is/are rejected.
- 7) Claim(s) 2-8,10-13,15 and 16 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 04 February 2004 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/4/04.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

1. This Office Action is in response to Applicant's Patent Application, Serial No. 10/772,930, with a File Date of February 4, 2004.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al. (USP 5,926,162) taken with Arai et al. (USP 6,304,236).

Relative to claims 1 and 9, Wood et al. **teaches** a common electrode voltage driving circuit for a liquid crystal display (col. 2, lines 44-62); Wood et al. further **teaches** a dynamic driving device for enhancing display of a dynamic image by dynamically adjusting a driving voltage applied to a Graphic Processing Unit of a liquid crystal display (col. 9, lines 45-543).

Wood et al. **does not teach** a driving path selection unit for allowing a user to specify a most appropriate driving path by dynamically adjusting the drive through an operation interface, further affecting the signal variation of said driving voltage applied to said Graphic Processing Unit.

Arai et al. **teaches** a display apparatus for adjusting the display image using a control signal from a computer (col. 2, lines 19-67 and col. 3, lines 1-47); Arai et al. further **teaches** a driving path

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selection unit for allowing a user to specify a most appropriate driving path by dynamically adjusting the drive through an operation interface, further affecting the signal variation of said driving voltage applied to said Graphic Processing Unit (Abstract).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Wood et al. the feature as taught by Arai et al. in order to put in place the means to dynamically optimize the image quality of a display by manual manipulation.

Regarding claim 14, Wood et al. further **teaches** said dynamic driving method wherein said surrounding atmospheric environment is the temperature (col. 5, lines 49-64).

Allowable Subject Matter

4. Claims 2-8, 10-13 and 15-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Relative to claims 2 and 10, the major difference between the teachings of the prior art of record (Wood et al. (USP 5,926,162) and Arai et al. (USP 6,304,236)) and that of the instant invention is that said prior art of record **does not teach** a dynamic driving device comprising a driving path unit used to store a plurality of pre-defined driving paths, said driving paths being defined by a driving path decision process, said driving path decision process being based on a surrounding atmospheric environment to pre-define a plurality of said driving paths corresponding to said surrounding atmospheric environment.

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Regarding claims 3 and 11, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** a dynamic driving device wherein the driving path is a variation of driving voltage from an initial driving voltage to a targeted driving voltage

Regarding claim 12, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** the said dynamic driving device wherein the driving path decision process further comprising the following steps:

(1) measuring the difference of an image parametric value within a time-related frame of said dynamic image on said liquid crystal display, and then deriving said driving path on said liquid crystal display corresponding to said surrounding atmospheric environment; (2)

re-calculating, based on said surrounding atmospheric environment, to obtain said driving path capable of enhancing said display effect of said dynamic images on said liquid crystal display corresponding to said surrounding atmospheric environment.

Relative to claim 13, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** the said dynamic driving device wherein the said image parametric value is the brightness parametric value of pixels.

Regarding claims 7 and 15, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** the said dynamic driving device wherein the operation interface further comprising: a dynamic image and an after-adjustment dynamic image, said before-adjustment dynamic image being based on said original driving path; a driving adjustment area for generating a new said driving path based

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on an adjustment command issued by a user, said after-adjustment dynamic image being based on a new said driving path generated by said adjustment command; and an execution key for setting the most appropriate driving path as a default driving path, said most appropriate driving path being determined by said user based on the comparison between said before-adjustment dynamic image and after-adjustment dynamic image.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

| | | |
|------------------|-----------------|-------------|
| U. S. Patent No. | 5,694,493 | Tuli |
| U. S. Patent No. | 4,516,055 | Nelson |
| Pub. No. | US 2002/0149577 | Arai et al. |

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To Respond

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent E. Kovalick whose telephone number is 571-272-7669.

The examiner can normally be reached on Monday-Thursday 7:30- 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Vincent E. Kovalick
November 3, 2006



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